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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,273	11/09/2001	Rene Bemmer	RBL0081	3931
7590 07/12/2005			EXAMINER	
Baker & Daniels Suite 800 111 East Wayne Street Fort Wayne, IN 46802			ROBERTS, BRIAN S	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/936,273	BEMMER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian Roberts	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/10/01 &amp; 01/07/02</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Applicant's preliminary amendment filed 10/09/2001 is acknowledged.

Claims 1-20 have been examined.

#### ***Drawings***

1. The drawings are objected to because Figures 2 and Figure 4 contain German phrases crossed out and replaced with handwritten English. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claims 1 and 7 are objected to because of a the following errors:
- Claim 1 recites the limitations "the operating mode", "the present or future change", and "the other participants" and "the communication process".  
There is insufficient antecedent basis for these limitations in the claims.
  - In claim 7, "RAN" should read --RNC--.
- Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 4-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- In reference to claims 4-9, 11, 14-18, 20  
Claims 4-9, 11, 14-18, and 20 recite the limitation "the radio network controller".  
There is insufficient antecedent basis for this limitation in the claims.
  - In reference to claim 5, 17, 18, 19  
Claims 5,17, and 18 recite the limitation "the physical transmission channel".  
There is insufficient antecedent basis for this limitation in the claims.

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- In reference to claim 6

Claim 6 recites the limitation "the connection" and "the transmission segments".

There is insufficient antecedent basis for these limitations in the claim.

- In reference to claim 9

Claim 9 recites the limitations "the inband signaling" and "the transmission frame". There is insufficient antecedent basis for these limitations in the claim.

- In reference to claim 10

The term "two duplex directions" is unclear and undefined. It is known in the art that a duplex connection can transmit and receive simultaneously but the term "two duplex directions" is unclear and not defined in the claims or the specification.

- In reference to claim 11

Claim 11 recites the limitations "the mobile station MS" and "the signaling channel". There is insufficient antecedent basis for these limitations in the claim.

- In reference to claim 12

Claim 12 recites the limitation "the frame identification". There is insufficient antecedent basis for this limitation in the claim.

- In reference to claim 14

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Claim 14 recites the limitation "the mobile station MS". There is insufficient antecedent basis for this limitation in the claim.

- In reference to claim 20

Claim 20 recites the limitations "the base stations Node Bs", "the mobile station MS", "the uplink", and "the measurement values". There is insufficient antecedent basis for these limitations in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 4, 6-16, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruhn (US 6452941) in view of Wallentin (US 6233222).

- In reference to claim 1, 8, 14

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that includes:

- Changing the speech coding/channel coding combination according to the channel conditions (column 3 lines 28-32)

Bruhn does not teach exchanging information about the present or future changes in codec operating modes to other participants in the communication process.

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Wallentin teaches RNCs in a CDMA network exchanging control information amongst each other indicating congested areas and adjustment values for a selected area. (abstract)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of Bruhn to include RNCs exchanging control information amongst each other as taught by Wallentin that includes present or future changes in the codec operating modes because it allows for a RNC to recommend a codec operating mode based upon the level of severity of congestion in a cell to another RNC to provide for the optimal connection between a mobile station and a base station in the CDMA network.

- In reference to claim 2

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches:

- Using speech coding/channel coding mode which provides for a low bit rate speech coding technique coupled with a relatively high degree of error (more robust codec operating mode) protection when channel conditions are poor (column 3 lines 35-38)

- In reference to claim 3

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches:

- Using speech coding/channel coding mode which provides for a high source coding bit rate and a relatively low degree of error protection (less robust codec operating mode) when channel conditions are good (column 3 lines 28-33)
- In reference to claim 4, 6, 15, 16

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches:

- “the receiver transmits signal quality measurements associated with the downlink channel to the (i.e., BTS to mobile station link) to the transmitter which the transmitter then uses to identify an appropriate codec mode”. (column 6 lines 55-59)

Bruhn does not explicitly teach the RNC deciding to change the operating mode.

Wallentin teaches the RNC selecting the connection to be adjusted and the adjustment value. (abstract; Figure 1)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of Bruhn to include a RNC making a decision as taught by Wallentin because the RNC controls the base stations and provides for a



central location to evaluate signal quality measurements and make adjustments accordingly.

- In reference to claim 7

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches a mode indicator transmitted with the payload data to inform the receiver of the particular codec scheme. (abstract)

Bruhn does not teach a RNC signaling.

Wallentin teaches a RNC signaling information to mobile stations via base stations. (abstract; Figure 1)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of Bruhn to include the RNC having outbound signaling as taught by Wallentin because the outbound signaling from the RNC provides for a central location to evaluate codec operating modes.

- In reference to claim 9, 11, 12, 13

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches:

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- In Figure 6, a frame with a Mode indication (MI) to indicate the codec mode in order for the mobile station to decode the payload information (column 9 lines 5-10)
- In Figure 6, a frame with a Mode request (MR) to indicate the codec mode with which the mobile station should transmit to the base station on the uplink (column 8 lines 63-66)

Bruhn does not teach a RNC signaling.

Wallentin teaches a RNC signaling information to mobile stations via base stations. (abstract; Figure 1)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of Bruhn to include the RNC signaling to the mobile user as taught by Wallentin because RNC provides for a central location to evaluate codec operating modes and inform the mobile station of the codec operation mode.

- In reference to claim 10

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. In Figure 1, Bruhn further teaches a method that provides for a plurality of mobile stations in a CDMA network using different codec modes.

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7. Claims 5 and 17-19, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruhn (US 6452941) in view of Wallentin (US 6233222) and further in view of Willars (US 6507567)

- In reference to claim 5, 17, 18, 19

The combination of Bruhn and Wallentin teaches a method that covers substantially all limitations of the parent claim.

The combination of Bruhn and Wallentin does not teach having a RNC select the physical channel.

In Figure 5, Willars teaches a RNC in a CDMA network allocating radio resources (physical channel) to be used by the mobile station. (column 10 lines 53-55)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Bruhn and Wallentin to include the RNC allocating radio resources to the mobile station as taught by Willars when there is a change of the codec mode because it provides for a centralized element to dynamically optimize connection between the mobile station and the CDMA network.

8. Claim 20, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruhn (US 6452941) in view of Wallentin (US 6233222) and further in view of Ueda (US 6044072).

- In reference to claim 20

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claims.

Bruhn does not explicitly teach the RNC deciding to change the operating mode.

Wallentin teaches the RNC selecting the connection to be adjusted and the adjustment value. (abstract; Figure 1)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of Bruhn to include a RNC making a decision as taught by Wallentin because the RNC controls the base stations and provides for central location to evaluate signal quality measurements and make adjustments accordingly.

The combination of Bruhn and Wallentin teaches a method that covers substantially all limitations of the parent claim.

The combination of Bruhn and Wallentin does not teach the base stations measuring the quality of the connection in the uplink.

Ueda teaches the base station measuring the uplink signal quality. (abstract)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of the combination of Bruhn and Wallentin to include the base station measuring the uplink signal quality because the uplink signal quality can then be used to determine the optimal codec mode between the base station and the mobile station.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- Raith (US 5757813) teaches a method for achieving optimal channel coding in a communication system.
- Li (US 5673266) teaches a frame variable data rate indication method.
- Navaro et al. (US 6108560) teaches a method of signaling between parities and selecting an appropriate codec based upon the signaling information.
- Ward et al. (US 5701294) teaches a system and method for flexible coding, modulation, and time slot allocation in a radio telecommunications network.
- Vargo et al. (US 6167060) teaches a dynamically changeable codec selection for Internet telephone.
- Furuya (US 5577087) teaches a variable modulation communication method and system.
- Allpress et al. (US 5920552) teaches a method using variable rate Walsh coding for wireless applications.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BSR  
06/25/2005



**JOHN PEZZLO**  
**PRIMARY EXAMINER**